

# *Dugan Clive O'Neil*

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## *CURRICULUM VITAE*

### *Personal*

Date of birth	16 December 1972
Citizenship	Canadian
Home telephone	(250) 721-9792

### *University Education*

1996-1999	<b>Ph.D.(in progress)</b> , Experimental High Energy Particle Physics Supervisor – Michel Lefebvre University of Victoria, Canada
1994-1996	<b>M.Sc.</b> , Experimental High Energy Particle Physics Supervisor – James L. Pinfold University of Alberta, Canada
1990-1994	<b>B.Sc.</b> Honours Physics Advisor – George DeMille University of New Brunswick, Canada

### *Awards*

1997-1999	<b>Natural Sciences and Engineering Research Council Post-graduate Scholarship</b> University of Victoria, Canada
1997-1999	<b>University President's Scholarship</b> University of Victoria, Canada
1996-1997	<b>R.M. Pearce Memorial Fellowship</b> University of Victoria, Canada
1996-1997	<b>University of Victoria Fellowship</b> University of Victoria, Canada
1995-1996	<b>Province of Alberta Graduate Scholarship</b> University of Alberta, Canada

1990-1994	<b>Canada Science Scholarship</b> University of New Brunswick, Canada
1990-1994	<b>Tom and Parker Hickey Memorial Scholarship</b> University of New Brunswick, Canada
1992,1993	<b>Natural Sciences and Engineering Research Council's Undergraduate Research Scholarship</b> University of Victoria, Canada

## *Research Experience*

### University of Victoria

- Evaluating ATLAS physics potential in single top channels
- Performed analysis of ATLAS Hadronic Endcap Module 0 testbeam data
- Participated in construction of ATLAS Hadronic Endcap module at TRIUMF in Vancouver, Canada
- ATLAS Hadronic Endcap Testbeam Responsibilities:
  - Developed and was responsible for the online monitoring software
  - Developed and was responsible for the offline reconstruction software
  - Responsible for data storage/management
  - On-call expert in monitoring and data management
  - Shift leader during the testbeam run

### University of Alberta

- Evaluated ATLAS physics potential for heavy Higgs discovery in  $H \rightarrow ZZ \rightarrow lljj$  channel
- Performed Monte Carlo studies to optimize design of Hadronic Endcap for jet resolution in the presence of pileup noise

## *Teaching Experience*

- Supervised summer student, 1998, Department of Physics and Astronomy, University of Victoria
- Teaching Assistant, 1994-1996, Department of Physics, University of Alberta
- Teaching Assistant, 1993-1994, Department of Physics, University of New Brunswick

## Talks Given at Professional Conferences

- Numerous presentations to ATLAS working groups at CERN. Presentations of Single Top studies, Hadronic Endcap software and Hadronic Endcap data analysis. For a complete list see <http://wwwhep.phys.uvic.ca/~dugan/>.
- *Western Regional Nuclear and Particle Physics Conference*, Lake Louise, Canada. February 1999. "The Physics of Single Top at ATLAS".
- *ATLAS Hadronic Endcap Calorimeter Workshop at Ringberg Castle*, Ringberg Castle, Germany. September 1998. "Hadronic Endcap Testbeam Results: 1998 Module Zero Tests".
- *Western Regional Nuclear and Particle Physics Conference*, Lake Louise, Canada. February 1997. "Heavy Higgs Reconstruction from  $H \rightarrow ZZ \rightarrow l\bar{l}j$  at ATLAS".

## References

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|------------------------|---|---|
| <b>Dr. M. Lefebvre</b> | Department of Physics,<br>University of Victoria,<br>P.O. Box 3055,<br>Victoria, B.C.,<br>Canada. V8W 3P6 | E-MAIL: lefebvre@uvic.ca<br>TEL: (250) 721-7706<br>FAX: (250) 721-7752        |
| <b>Dr. H. Oberlack</b> | Max-Planck-Institut fuer Physik<br>Foehringer Ring 6,<br>D - 80805 Muenchen<br>Germany                    | E-MAIL: oberlack@mppmu.mpg.de<br>TEL: (89) 323 54 202<br>FAX: (89) 323 54 305 |

## Publications

1. Oberlack, Oram et al., *ATLAS Hadronic Endcap Module 0 Testbeam Performance*, Nuclear Instruments and Methods (in progress).
2. M. Lefebvre, D. O'Neil, *Endcap Hadronic Calorimeter Offline Testbeam Software: The hec\_adc Package Version 3.6*, ATLAS-LARG-99-002.
3. M. Dobbs, M. Lefebvre, D. O'Neil, *Hadronic Endcap Modules Zero Pion and Electron Energy Scan Analysis from April 1998 Testbeam Data*, ATLAS-LARG-99-001.

4. ATLAS-HEC Collaboration, *Electron and Pion Test Beam Data Analysis of the Hadronic Endcap Prototype Calorimeter.*, ATLAS-LARG-95.
5. Robert Davis, Dugan O'Neil and Pierre Savard, *Energy Resolution of Jets in the Presence of Pileup Noise in the Endcap Calorimetry*, ATLAS-CAL-96-089.